

REMARKS

[0001] Claims 1-40 are pending. The Office Action mailed October 10, 2007 [hereinafter “Office Action”] objected to the specification for failing to provide antecedent basis for the claimed subject matter. The Office Action rejected Claims 1-16 and 40 under 35 U.S.C. § 101 as being directed to non-statutory subject matter. The Office Action rejected Claims 1-16, 21-24, 29-32, and 40 under 35 U.S.C. § 112 as being indefinite. The Office Action rejected Claims 1, 2, 4-10, 12-18, 20-26, and 28-40 under 35 U.S.C. § 102(b) as being anticipated by Yanaka, et al., U.S. Patent No. 6,467,034 [hereinafter “Yanaka”]. The Office Action rejected Claims 3, 11, 19, and 27 under 35 U.S.C. § 103(a) as being unpatentable over Yanaka in view of Yamagami, U.S. Patent Publication No. 2002/0143999 [hereinafter “Yamagami”].

AMENDMENTS TO THE SPECIFICATION

[0002] The specification has been amended to provide antecedent basis for computer readable medium in Claims 38 and 39. The amendments find full support in the original claims and in paragraphs 33, 34 and 35 of the specification. In addition, one of skill in the art will recognize that modules implemented in software would be stored on one or more computer readable media.

AMENDMENTS TO THE CLAIMS

[0003] Claims 33-37 and 40 are cancelled. Claims 41-45 are new. Claims 1, 2, 3-9, 12-18, 20-26, 28-32, 38, and 39 have been amended to more particularly point out the features of the present invention. The amendments are fully supported by the specification, drawings, and claims.

REJECTION OF CLAIMS 1-16 AND 40 UNDER 35 U.S.C. § 101

[0004] The Office Action rejected Claims 1-16 and 40 as being directed to non-statutory matter. The Applicants have cancelled Claim 40 and amended Claims 1 and 9. The Applicants amended Claims 1 and 9 to recite that the modules may be either hardware, executable code, or both and where the executable code is stored on one or more computer readable media. The

amendments are supported by Claims 38 and 39 and in paragraphs 33-35 of the specification.

The Applicants respectfully assert that the amended claims are statutory because where a module is implemented purely in executable code, the executable code is stored on one or more computer readable media, and is therefore statutory. The Applicants request that the section 101 rejection be withdrawn.

REJECTION OF CLAIMS 1-16, 21-24, 29-32 AND 40 UNDER 35 U.S.C. § 112

[0005] The Office Action rejected Claims 1-16, 21-24, 29-32 and 40 under 35 U.S.C. § 112 as being indefinite. The Office Action rejected Claims 5, 6, 13, 14, 21, 22, 29, and 30 for lack of antecedent basis. Claims 5, 6, 13, 14, 21, 22, 29, and 30 have been amended to correct the lack of antecedent basis. The Office Action rejected Claims 6-8, 14-16, 22-24, and 30-32 based on the concept of multiplying an attribute or taking the difference between attributes. The Applicants respectfully assert the right be their own Lexicographers and wish to point out that the specification and drawings clearly indicate that an “attribute” may be configured as a numerical value. Paragraph 67 of the specification also clearly states that “each attribute may be formulated to determine a difference between a copy policy attribute and each corresponding copy function attribute.” Figures 8 and 11 and accompanying text in the specification further provide examples of attributes formulated to determine a difference. The Applicants have further made this clear by amending the claims.

[0006] The Office Action also rejected Claims 1-16 and 40 as being indefinite. As stated above, Claim 40 is cancelled. Also, the Applicants have amended Claims 1 and 9 to recite that modules can be hardware, executable code stored on computer readable media, or both. The Applicants respectfully assert that a software module implemented as executable code and stored on one or more computer readable media is an apparatus every bit as much as a module partially or wholly implemented in hardware. The Applicants respectfully request that amended Claims 1-16, 21-24, 29-32 and 40 overcome any perceived indefiniteness and are allowable. The Applicants respectfully request that the section 112 rejection be withdrawn.

REJECTION OF CLAIMS 1, 2, 4-10, 12-18, 20-26 AND 28-40 UNDER 35 U.S.C. §102(b)

[0007] The Office Action rejected Claims 1, 2, 4-10, 12-18, 20-26 and 28-40 under 35 U.S.C. §102(b) as being anticipated by Yanaka. The Applicants respectfully traverse this rejection. “Anticipation under 35 U.S.C. §102 requires the disclosure in a single piece of prior art of each and every limitation of a claimed invention. ...Whether such art is anticipating is a question of fact.” *Apple Computer, Inc. v. Articulate Systems, Inc.* 234 F.3d 14, 20, 57 USPQ2d 1057, 1061 (Fed. Cir. 2000). It is well settled that under 35 U.S.C. §102 “an invention is anticipated if . . . all the claim limitations [are] shown in a single art prior art reference. Every element of the claimed invention must be literally present, arranged as in the claim. The identical invention must be shown in as complete detail as is contained in the patent claim.” *Richardson v. Suzuki Motor Co., Ltd.*, 9 U.S.P.Q.2d 1913, 1920 (Fed. Cir. 1989). In determining whether a prior art reference anticipates a claim, it is necessary to (1) determine the scope of Applicant's broadest claim, (2) determine exactly what the single prior art reference discloses, and (3) compare each and every claim limitation against the prior art disclosure. *SSIH Equipment, S.A. v. U.S Int'l Trade Commission et al.*, 218 U.S.P.Q. 678, 688. Only if each limitation is literally disclosed by the prior art reference is the claim anticipated.

[0008] With regard to Claim 1, the Office Action states that Yanaka discloses: “compare[ing] each available copy function to a predefined copy policy” stating that “the write activity detector monitors the write requests and identifies if the present mode (i.e. synchronous, semi-synchronous or adaptive – the three predefined copy policies) is appropriate for the data transfer” and cites column 7, lines 20-32 of Yanaka as evidence. Office Action at p.6.

[0009] The Applicants have amended Claim 1 to recite that the comparison module compares **attributes** of each available copy function to **attributes** of a predefined copy policy. Yanaka teaches that the write activity detector “monitors **activity** of a command received by the host controller A121, and when it recognizes that the activity has become larger than the range of an activity estimated in an operation mode at that point in time, it issues a signal to change over the mode to a mode making it possible to perform a data processing at a higher speed through the

host controller A121.” Yanaka at col. 7, ll. 25-32. Monitoring **activity** is not the same as comparing **attributes**. Activity relates to execution speed of a data copy request and amount of delay of unexecuted requests.

[0010] This concept is made clear as the write activity detector is further defined in Yanaka in column 9, lines 8-67. Yanaka teaches using predefined queue trigger points to change from one predefined copy mode to another. *Id.* at col. 9, ll. 8-67. Yanaka does not compare attributes with attributes, but instead compares performance metrics to predefined limits to shift from one copy mode to another. Even if a predefined limit of Yanaka is incorrectly assumed to be a predefined copy policy attribute, it is not compared to an attribute of a copy function, but instead is compared to performance metrics measured within a processor or related hardware.

[0011] The invention of amended Claim 1 recites that attributes of a copy function are compared to corresponding attributes in a predefined copy policy. This is a comparison of an attribute with a similar attribute, not a performance metric compared to a limit. The Applicants respectfully assert that Yanaka does not anticipate amended Claim 1 because Yanaka does not teach, disclose, or suggest comparing an attribute of a copy function with a predefined copy policy attribute.

[0012] The Office Action states that Yanaka discloses “identify[ing] available copy functions in response to a data copy request” and states that “the write activity detector monitors the write requests and identifies if the present mode (i.e. synchronous, semi-synchronous or adaptive – the three predefined copy policies) is appropriate for the data transfer” and cites column 7, lines 20-32 of Yanaka as evidence. Office Action at p. 6. The Applicants disagree.

[0013] Yanaka does not teach that the write activity detector identifies “available” copy functions, but instead identifies an “activity” of an executing command in order select one of the three pre-selected copy commands. Yanaka at col. 7, ll. 25-32, col. 9, ll. 8-67. The three copy modes are already “identified” and the write activity detector merely selects one of the three modes – a function that would more fairly be equated with the function of the selection module of Claim 1. (However, the Applicants assert that Yanaka does not anticipate the function of the selection module.)

[0014] In order to move along prosecution, the Applicants have amended functions of the identification module in the first element of Claim 1 to further clarify that Yanaka does not teach, disclose, or suggest the limitations associated with the identification module. Specifically, amended Claim 1 recites that each copy function is compatible with the secondary storage device where the data copy request directs the data and is available to the an application to copy data to the secondary storage device. Yanaka does not teach selecting a copy function from copy functions compatible with a storage device and also available to an application. The Applicants respectfully assert that Yanaka fails to teach, disclose, or suggest all of the limitations of amended Claim 1 and that amended Claim 1 is in condition for immediate allowance.

[0015] The Applicants respectfully assert that Claims 9, 17, 25, and 38 are similar in scope to Claim 1 and that the arguments presented above for Claim 1 are equally applicable and therefore Claims 9, 17, 25, and 38 are allowable. In addition, the Applicants assert that Claims 2, 4-8, 10, 12-16, 18, 20-24, 26, 28-32, and 39 are allowable because they depend from allowable claims.

[0016] The Applicants also respectfully assert that the attributes compared by the comparison module in Claims 5-8, 13-16, 21-24, and 29-32 are not the same as what is taught in Yanaka with respect to the write activity detector and that Claims 5-8, 13-16, 21-24, and 29-32 are allowable.

[0017] The Applicants have added Claims 41-45 which define specific attributes included in the predefined copy policy. Claims 41-45 are supported in the specification, specifically in paragraphs 74-79 and in Figure 11. The Applicants respectfully assert that the limitations recited in new Claims 41-45 are not taught, disclosed, or even suggested in Yanaka and are allowable.

REJECTION OF CLAIMS 3, 11, 19, AND 27 UNDER 35 U.S.C. §103(a)

[0018] The Office Action rejected Claims 3, 11, 19, and 27 under 35 U.S.C. § 103(a) as being unpatentable over Yanaka in view of Yamagami. The Applicants respectfully traverse this rejection. The Applicants respectfully assert that Claims 1, 9, 17, and 25 are in condition for allowance. Claims 3, 11, 19, and 27 depend on Claims 1, 9, 17, and 25 and because the

invention of Claims 1, 9, 17, and 25 are allowable, the Applicants respectfully assert that Claims 3, 11, 19, and 27 are similarly in condition for allowance because they depend from allowable claims.

[0019] Should additional information be required, the Examiner is respectfully asked to notify the Applicants of such need. If any impediments to the prompt allowance of the claims can be resolved by a telephone conversation, the Examiner is respectfully requested to contact the undersigned.

Respectfully submitted,

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